Assignment 1: Array Operations

1. Create an empty array called "fruits".

```
      Ans:- let fruits =[];
```

2. Add the following fruits to the "fruits" array: "apple", "banana", "orange"

```
      Ans:- let fruits = ["apple", "banana", "orange"];
```

3. Remove the first fruit from the array.

```
      Ans :- fruits.splice(0,1)

Output:-  ['banana', 'orange']
```

4. Add "grape" to the end of the array.

```
      Ans :  fruits.splice(0,0,"grape")

Output:-  ['grape', 'apple', 'banana', 'orange']
```

5. Update the second fruit in the array to "pear".

```
      Ans:- fruits.splice(1,1,"pear")

Output:-  fruits.splice(1,1,"pear")
```

6. Print the final "fruits" array after performing the above operations.

```
      Ans:- let fruits = ["apple", "banana", "orange"];

fruits.splice(0,1)

fruits.splice(0,0,"grape")
fruits.splice(1,1,"pear")
console.log(fruits)

output:
      ['grape', 'pear', 'banana', 'orange']
```

Assignment 2: Object Operations

1. Create an empty object called "person".

```
Ans:- var person = {};
```

2. Add the following properties to the "person" object:
   - name: "John"
   - age: 30
   - city: "New York"

```
Ans:- var person = {
    name:"John",
    age:30,
    city: "New York"
};
```

3. Remove the "age" property from the "person" object.

```
Ans:-delete person.age
Output:-{name: 'John', city: 'New York'}
```

4. Add a new property called "job" with the value "Engineer" to the "person" object.

```
Ans:-person.job="Engineer"
Output:-{name: 'John', city: 'New York', job: 'Engineer'}
```

5. Update the "city" property of the "person" object to "San Francisco".

```
Ans:- person['city']="San Francisco"
Output:-{name: 'John', city: 'San Francisco', job: 'Engineer'}
```

6. Print the final "person" object after performing the above operations.

```
var person = {
    name:"John",
    age:30,
    city: "New York"
};
delete person.age
person.job="Engineer"
person['city']="San Francisco"
console.log(person)

Output:-{name: 'John', city: 'San Francisco', job: 'Engineer'}
```

Assignment 3: Array of Objects Operations

1. Create an empty array called "cars".

Ans:-

```
let cars=[];
```

2. Add three car objects to the "cars" array. Each car object should have the following properties:

- make: "Toyota"
- model: "Camry"
- year: 2018

Ans:-

```
let cars=[{make: "Toyota",model: "Camry",year: 2018}]
console.log(cars)
```

output:-

```
{make: 'Toyota', model: 'Camry', year: 2018}
```

3. Remove the first car object from the "cars" array.

Ans:-

```
delete cars[0].make
console.log(cars)
```

output:-`{model: 'Camry', year: 2018}`

4. Add a new car object to the "cars" array with the following properties:

- make: "Honda"
- model: "Civic"
- year: 2020

Ans:-

```
cars.push({make: "Honda",model: "Civic",year: 2020})
console.log(cars)
```

output:-

```
{model: 'Camry', year: 2018}

{make: 'Honda', model: 'Civic', year: 2020}
```

5. Update the "model" property of the second car object in the array to "Accord".

Ans:-

```
cars[1].model="Accord"
console.log(cars)
```

Output:-

```
1. 0: {model: 'Camry', year: 2018}
2. 1: {make: 'Honda', model: 'Accord', year: 2020}
```

6. Print the final "cars" array after performing the above operations.

Ans:-

```
let cars=[{make: "Toyota",model: "Camry",year: 2018}]
delete cars[0].make
cars.push({make: "Honda",model: "Civic",year: 2020})
cars[1].model="Accord"
console.log(cars)
```

Output:-

```
1. 0: {model: 'Camry', year: 2018}
2. 1: {make: 'Honda', model: 'Accord', year: 2020}
```